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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/740,531

Filing Date: December 18, 2000

Appellant(s): COPELAND ET AL.

Kevin L. Daffer
Reg. No. 34.146
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 21, 2006.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The appellant's statement that the claims stand or fall as a single group is correct.

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

5,706,435

Barbará et al.

1-1998

6,327,628

Anuff et al.

12-2001

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims as previously stated in the action issued by Examiner Kianersi:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-7, 10-12, 14-16, and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Barbará et al. (U.S. Patent No. 5,706,435).

In regard to claim 1, Barbará disclosed *a server; a client, adapted to send requests to the server; and a numeric-valued generation ID, accompanying each request from the client to the server, incremented by the server upon receiving the request, and recorded by the server before being returned to the client, and such that if the generation ID accompanying a request from the client differs from the generation ID recorded by the server, an affinity break between the client and the server is detected*. See Barbará, abstract, column 10, lines 66-67, column 11, lines 1-5, column 10, lines 52-62. Barbará disclosed a server and a client which exchanged invalidation reports with timestamps present in order to detect problems in cache coherency (affinity breaks). See Barbará, column 8, lines 1-50. The naming of the server and client was not important since

Barbará did not present a distributed application. The use of a timestamp made the numerical value of the ID inherent.

In regard to claim 2, Barbará is applied as in claim 1. Barbará further disclosed *a plurality of clients adapted to send requests to the server, wherein each client has a unique ID*. See Barbará, column 2, line 62. See Barbará, column 8, lines 3-25, which presented invalidation reports with timestamps.

In regard to claim 3, Barbará is applied as in claim 2. Barbará further disclosed *an affinity command, which combines the generation ID accompanying a request with the user ID of the client sending the request, and by means of which the server may detect an affinity break with a particular client among the plurality of clients*. See Barbará, column 10, lines 14-16, figure 5, column 10, lines 52-62. The detection of an invalidation in cache coherency which was accomplished by Barbará performed the equivalent functionality of this claim. The transmission of the *affinity command* was the transmission of the invalidation report. The *generation ID* was the timestamp. The *user ID of the client sending the request* was present in any network transmission since the sending address was inherently sent with a network transmission from a server to a client or a client to a server.

In regard to claim 5, Barbará further disclosee *a plurality of servers, wherein affinity between a client and first server may be broken as a result of the client sending a request to a*

second server. See column 9, line 22. Barbará detected cache coherency problems based upon a report not being received by the proper recipient. See column 6, lines 26-56.

In regard to claim 6, Barbará further disclosed *an affinity break between a client and a server may occur if the server becomes unavailable.* See column 9, line 22. Barbará detected cache coherency problems based upon a report not being received by the proper recipient. See column 6, lines 26-56.

In regard to claim 7, Barbará further disclosed *detection of an affinity break between a client and a server may be used to invalidate contents of the cache in the server.* See column 6, lines 41-56.

In regard to claim 10, Barbará disclosed *the client sending a request to the server, accompanied by a numeric-valued generation id (GID); the server receiving the request and the GID from the client, and comparing the received GID against a previously recorded GIS; if the received GID matches the recorded GID, incrementing the recorded GID, and returning it to the client as the new GID; and if the received GID does not match the recorded GID, reporting an affinity break between the client and the server.* These limitations are largely the limitations of claim 1. The comparison of GIDs was described in column 6 of Barbará and the functions described here were basic inherent steps of cache coherency, wherein duplicate records were prevented and data was invalidated upon detecting that a request was not received.

In regard to claim 11, Barbará is applied as in claim 10. Barbará further disclosed *a plurality of clients adapted to send requests to the server, wherein each client has a unique ID.* See Barbará, column 2, line 62. See Barbará, column 8, lines 3-25, which presented invalidation reports with timestamps.

In regard to claim 12, Barbará is applied as in claim 11. Barbará further disclosed *sending an affinity command with each request from a client, such that the affinity command combines the GID with the user ID of the client sending the request, and detecting an affinity break with a particular client among the plurality of clients by means of the user ID.* See Barbará, column 10, lines 14-16, figure 5, column 10, lines 52-62. The detection of an invalidation in cache coherency which was accomplished by Barbará performed the equivalent functionality of this claim. The transmission of the *affinity command* was the transmission of the invalidation report. The *generation ID* was the timestamp. The *user ID of the client sending the request* was present in any network transmission since the sending address was inherently sent with a network transmission from a server to a client or a client to a server.

In regard to claim 14, Barbará is applied as in claim 12. Barbará further disclosed *detecting affinity breaks between a plurality of clients and a plurality of servers, each of which is equipped with a cache, such that affinity between a client and first server may be broken as a result of the client sending a request to a second server.* See column 9, line 22. Barbará detected cache coherency problems based upon a report not being received by the proper recipient. See column 6, lines 26-56.

In regard to claim 15, Barbará is applied as in claim 14. Barbará further disclosed *an affinity break between a client and a server may occur if the server becomes unavailable*. See column 9, line 22. Barbará detected cache coherency problems based upon a report not being received by the proper recipient. See column 6, lines 26-56.

In regard to claim 16, Barbará is applied as in claim 15. Barbará further disclosed *detection of an affinity break between a client and a server may be used to invalidate contents of the cache in the server*. See column 6, lines 41-56.

In regard to claim 19, Barbará disclosed *instructions for the server receiving a request and a numeric-valued generation ID (GID) from the client, and comparing the received GID against a previously recorded GID; instructions for incrementing the recorded GID, and returning it to the client as the new GID, if the received GID matches the recorded GID; and instructions for reporting an affinity break between the client and the server, if the received GID does not match the recorded GID*. These limitations were largely the same as the limitations of claim 10.

In regard to claim 20, Barbará is applied as in claim 19. Barbará further disclosed *instructions for the client sending a request to the server, accompanied by a numeric-valued generation ID (GID)*. This limitation was present in claim 10.

In regard to claim 21, Barbará disclosed *means for the server receiving a request and a numeric-valued generation ID (GID) from the client; comparing the received GID against a previously recorded GID; means for incrementing the recorded GID, and returning it to the client as the new GID, if the received GID matches the recorded GID; and means for reporting an affinity break between the client and the server, if the received GID does not match the recorded GID.* These limitations were largely the same as the limitations of claim 10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 8-9, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbará in view of Anuff et al. (U.S. Patent No. 6,327,628).

In regard to claim 4, Barbará is applied as in claim 1. Barbará failed to disclose use of a Java Virtual Machine equipped with a cache. However, Anuff disclosed a method where a memory cache was cleared by the Java Virtual Machine when resources were running low. See Anuff, column 11, lines 61-63. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Barbará with the teachings of Anuff in order to improve the method of maintaining a coherent view of the data in the cache of each mobile unit. The improved method failed to require the mobile units to stay online at all times, and did not require a full cache refresh each time a mobile unit was turned on.

In regard to claims 8 and 17, Barbará in view of Anuff is applied as in claims 4 and 16.

Barbará failed to disclose the use of a cookie to return an affinity command. However, Anuff taught that a browser cookie stored login information so that each time a user visited a site they did not have to log in. See column 13, lines 25-31 of Anuff. Therefore it would have been obvious to one of ordinary skill in the art to combine Barbará with Anuff in order to allow users to access data faster.

In regard to claims 9 and 13, Barbará is applied as in claims 1 and 11. Barbará failed to disclose the use of an object-oriented system. However, Anuff disclosed the use of software objects. See Anuff, column 4, lines 47-48. Therefore it would have been obvious to one of ordinary skill in the art to use an object-oriented programming environment in Barbará to allow for the ease of authoring and modifying the software code by the programmer.

(11) Response to Argument

In regard to independent claims 1, 10, 19, and 21, Appellant argued that Barbará failed to disclose a client that sends a request to a server, where the request includes a numeric-valued generation ID (GID). The Office disagrees.

Appellant argued the Barbará reference is not applicable because Barbará referred to an invalidation report sent from a server to a client processor. The Office notes this fact. The naming of what is a “server” and what is a “client” is irrelevant. Client-server architecture is a long-standing key component of the networking art. Advances in technology have blurred the line demarking what is termed a server and what is termed a client. Technically, a server can send information to a client and receive information from a client; a client also can do the same

to a server. Naming a machine a “server” or a “client” is irrelevant to the Barbará art since no distributed program is being run from the “server” and distributed to “clients”. Barbará merely discloses a method of cache coherency between a “server” and a “client.” The important concept is that a request is sent to another computer. The labeling of the machines is not important.

Appellant argued the Barbará reference failed to disclose the invalidation report uses a numeric-valued generation ID. Appellant referred to a specific embodiment of Barbará to point out that no numerical values were present in the invalidation report. Column 7, lines 54-65 of the Barbará reference pointed out the use of timestamps in the invalidation report. It was well known to the art that a timestamp was stored in a computer as a numerical value and the preferred format of the timestamp was extrapolated upon display based on the application preferences. The presence of a numerically valued generation ID in the form of a timestamp invalidates Appellant’s argument that the invalidation reports of Barbará failed to include a numeric-valued generation ID.

In regard to independent claims 10, 19 and 21, Appellant argued Barbará failed to disclose a server, which was adapted to receive the request from the client and to compare the received GID against a previously recorded GID. Appellant’s arguments about the naming of the client and server and the presence of a numerically-valued ID were previously addressed in this response. Barbará also compareed the timestamps (IDs). See Barbará, column 8, lines 6-9.

In regard to independent claims 1, 10, 19 and 21, Appellant argued Barbará failed to disclose that, if the received GID matched the recorded GID, the server incremented the recorded GID and returned the incremented GID to the client as a new GID. The functionality here is ensuring cache coherency between the server and client by checking to make sure that duplicate

entries do not exist between the server and the client. This is an inherent function of any cache coherency system, where the presence of duplicate IDs for data would cause havoc with the system because of data conflicts and storage errors.

In regard to independent claims 1, 10, 19 and 21, Appellant argued Barbará failed to disclose an affinity break was detected/reported between the client and the server, if the received GID did not match the recorded GID. Column 8 of Barbará disclosed checking a timestamp to ensure the data meets coherency requirements. This is the same functionality as the claimed invention, which recognizes a failure in cache coherency, or an “affinity break”.

In regard to claims 4, 8, 9, 13 and 17, Appellant argued that Barbará in view of Anuff failed to disclose a server adapted to: (i) receive a request including a numeric-valued generation ID (GID) from a client, (ii) compare the received GID against a GID previously recorded in the server, (iii) increment the recorded GID and return the incremented GID to the client as a new GID, if the received GID matches the recorded GID, or (iv) report an affinity break between the client and the server, if the received GID does not match the recorded GID. All of Appellants arguments were previously addressed herein.

In regard to claim 4, Appellant argued that Barbará in view of Anuff failed to disclose a server comprising a Java Virtual Machine equipped with a cache. Appellant’s arguments on this point were not directed toward the Java Virtual Machine; the arguments were rather directed towards Appellant’s previous arguments involving the client/server and GID as previously addressed.

In regard to claims 9 and 13, Appellant argued that Barbará in view of Anuff failed to disclose a system in which a server is adapted to perform the functions in claims 1 and 10, where

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the system comprises an object-oriented software system. Appellant's arguments on this point were again addressed toward the suggested problems with Barbará in regard to claims 1 and 10 and not toward the object-oriented software system of claims 9 and 13. The Office previously addressed the rejection to claims 1 and 10.

In regard to claims 8 and 17, Appellant argued that Barbará in view of Anuff failed to disclose an affinity command that may be sent by a server to a client (and returned by the client to the server) in the form of a cookie. Appellant specifically argued that the cookie in Anuff is unable to support the data claimed by Appellant. A cookie was able to store many types of information as required by the application in question. The inventive point is the use of the cookie, not the data used in the cookie since data can be easily interchanged and replaced with other data. Anuff's cookie stored a user name and password – two disparate pieces of information. Appellant claimed a cookie storing a user ID and a generation ID – two disparate pieces of information. Such a modification would have been obvious to one of ordinary skill in the art.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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April 27, 2006

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